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Subject:	PH draft HHRA
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Dana -

I will be out on Friday November 13, and won't be able to spend the day on the PH HHRA as planned. I do not want to rush, so I'm going to wait until Monday to send initial draft comments. Besides, I do not want to encourage you to work on the HHRA immediately after returning to this continent. But if you are being crazy and working before Monday, I will offer up one new comment to think about. I missed this in my first run-through.

In the presentation of uncertainty, the range of variation in hazard index values is greatly overstated. This is because each toxic endpoint in an exposure scenario is considered independently. Instead, each scenario should be evaluated based on the chemical(s)/endpoint combination resulting in the greatest hazard index. For example, in Table 5-186, the HI range for tribal fisher direct exposure to inwater sediment across all half-mile segments is listed as 0.00000008 to 1. This range is developed using the very lowest chemical/endpoint combination (naphthalene causing whole body effects) to the highest chemical/endpoint combination (arsenic causing skin effects). The lowest HI for a scenario is irrelevant for decision making; decisions are based on the highest calculated HI at each location. The correct range for tribal fisher sediment exposure should be developed using the highest chemical/endpoint combination at each location (Table 5-36). This range is 0.002 (arsenic, skin effects) to 1 (dioxin TEQ, reproductive effects). In this example, the HI range in Table 5-186 is overstated by a factor of 25,000. This overstatement of HI uncertainty is typical of many other scenarios (Figures E-2, E-3, and 8-1 to 8-4). The correct evaluation will need to be performed before the agencies have an appropriate view of uncertainty associated with non-cancer risks.

Welcome back!

- Mike